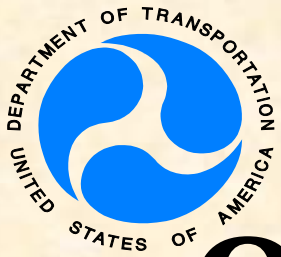


# **THE FEDERAL RADIONAVIGATION ON PLAN**

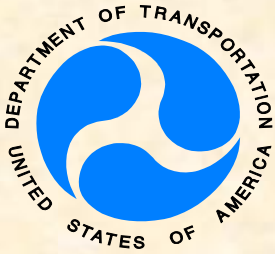
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**Civil GPS Civil Service Interface  
Committee  
March 28, 2000**

**Mr. Michael Shaw  
Office of Radionavigation & Positioning  
US Department of Transportation**

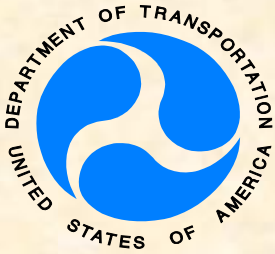


- # **Overview**
- **Background**
  - **1999 FRP Policies**
    - **Space & Ground-based Systems**
  - **2001 FRP Effort**
  - **Availability of 1999 FRP**



# Background

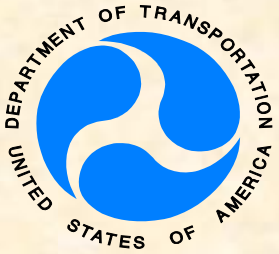
- **The Federal Radionavigation Plan (FRP) is source for U.S. radionavigation policies & plans**
  - **Common-Use Radionavigation Systems (Military/Civil)**
  - **Mandated by the INMARSAT ACT of 1978**
  - **Recodified in 1998 National Defense Authorization Act**
  - **Jointly Published by DOT and DOD Biennially**
- **1999 FRP Published in February 2000**



# 1999 FRP Policies

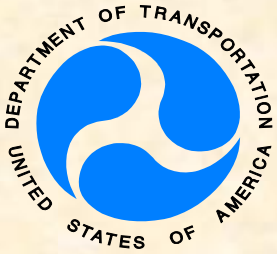
- **GPS**

- **SPS Available Free of Direct Charge**
- **PPS Available Only to Military & Civil Users Authorized by Department of Defense**
- **Additional Civil Signals**
  - **2nd C/A coded Civil Signal at 1227.6 MHz (L2)**
  - **3rd Civil Signal at 1176.45 MHz (L5) for Safety-of-Life Applications**



# 1999 FRP Policies

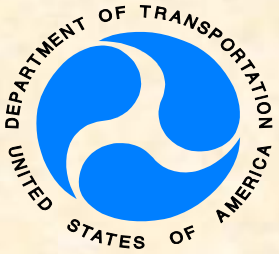
- **Maritime DGPS**
  - **FOC achieved on March 15, 1999**
- **Nationwide DGPS**
  - **Expanding Maritime DGPS to cover entire U.S.**
  - **Single Coverage in 2002 (IOC)**
  - **Double Coverage in 2003 (FOC)**
- **Aeronautical Augmentations (WAAS/LAAS)**
  - **WAAS: Initial Capability by end of 2000**
  - **LAAS: CAT I Specifications completed**



# 1999 FRP Policies

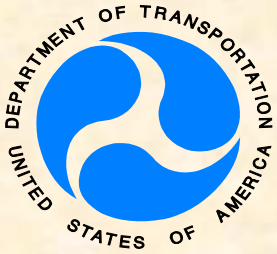
- **Marine Radiobeacons**
  - **Non-DGPS have been Phased Out**
- **VOR/DME**
  - **Phasedown expected to begin in 2008**
- **TACAN**
  - **Target Date to begin Phasedown is 2008**
- **Aeronautical Nondirectional Beacons (NDBs)**
  - **Stand-alone NDBs to be Phased out after 2008**
  - **Separate transition plan for Alaska**





# 1999 FRP Policies

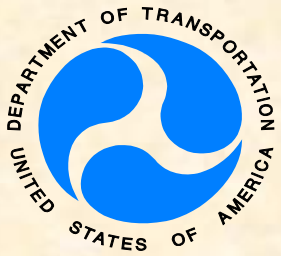
- **Precision Approach Systems**
  - **Instrument Landing System (ILS)**
    - CAT I expected to begin Phasedown in 2008
    - CAT II/III Phasedown not expected before 2015
  - **Microwave Landing System (MLS)**
    - CAT I Phasedown expected to begin in 2008
    - CAT II/III development program canceled



# 1999 FRP Policies

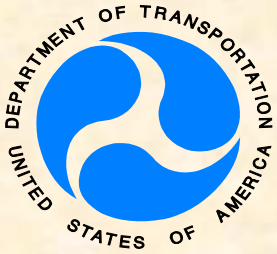
- **Loran-C**
  - **Will be operated in the short term**
  - **The Administration will continue to evaluate the long-term need for Loran-C**
  - **Users will be given reasonable notice if USG concludes that Loran-C is not needed nor cost effective**





# **2001 Federal Radionavigation Plan**

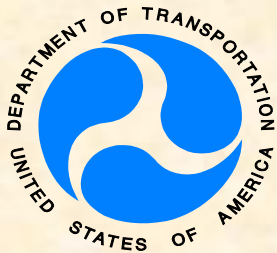
- **User Conferences Begin in March**
- **Begin the Draft 2001 FRP in April 2000**
- **Complete Draft Document in Dec 2000**
- **Begin Formal Clearance Process in Jan 2001**
- **SECDOT/SECDEF Signatures by July 2001**
- **Publish 2001 FRP in July/August, 2001**



# 2001 FRP

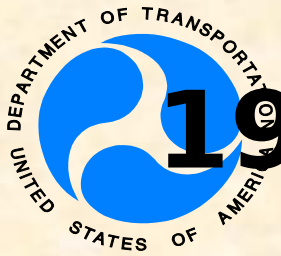
- **FRP User Conferences**

- **1<sup>st</sup> User Conference conducted in conjunction with CGSIC meeting, Washington, DC**
  - **March 30<sup>th</sup> - 1 PM**
- **2<sup>nd</sup> User Conference is planned in conjunction with ION meeting in San Diego**
  - **June 29<sup>th</sup>, 2000 - Full Day**



# Summary

- **1999 FRP reiterates commitment to GPS**
  - **SPS Available Free of Direct Charge**
  - **GPS Modernization proceeding**
- **GPS Augmentations**
  - **Marine DGPS FOC 1999**
  - **Full Nationwide DGPS Service by 2003**
  - **WAAS Capability in 2000**
  - **LAAS remains on Schedule**
- **Continue evaluating the need for Loran-C**
- **Next FRP will be Published in 2001**



# **1999 FRP AVAILABILITY**

- **Free copies available from:**  
**Volpe National Transportation  
System Center**  
**Kendall Square**  
**Cambridge, MA. 02142**  
**Tel: 617-494-2908**
- **Also available on the Internet  
at: <http://www.navcen.uscg.mil/frp>**